

# MISSOURI. Conservationist

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# The Weed Patch

Conservation progress takes time and patience. My wife, Janet, and I have the experience to confirm this truth. We have seen beautiful places where pasture has been restored to native

grassland, and we decided to try it on our farm in Carter County.

Our farm is devoted to livestock pasture and hay land, typical of those in the region. We do have something a bit unusual: a 3-acre “sinkhole” pond in a pasture, and this feature caught the eye of our private land conservationist, Don Forester. With Don’s help, we developed a plan to protect the natural pond and restore the acreage around it to native cover. In 2007, we fenced the livestock away from the pond and 11 acres, and we buried a supply pipe from the pond to a watering tank set up in our pasture, outside the protected area. We sprayed and disked the acreage, brought it up to soil test with lime and fertilizer, and planted a mix of native grasses and forbs. OK! Mission accomplished ... job over, right!? Well, not exactly.

When the rains came and the bare field turned green with life, we were excited to see the new plants sprouting. Our excitement turned to dismay when we realized that most of what we saw was emerging crabgrass and not the native plants we expected. Clover also appeared in competition with the natives. This was not good news either, but we felt some consolation that rabbits, deer and other wildlife would use the clover. Alas, we did not anticipate the presence of so many undesirable, dormant seeds in the soil.

As spring became summer, the crabgrass grew so dense it was hard to imagine that anything else could grow with or under it. But, a close look revealed that some of the native plants did germinate and live. To give them a fighting chance, we set the brush hog high and mowed the crabgrass.

All we could do was wait to see if more native seeds would germinate the second year. In the spring, the good news was that the crabgrass was less dominant, and many more desirable plants appeared. The bad news was that horse weeds emerged and outgrew everything else as the season progressed. In spite of this competition, a variety of the desired native forbs and grasses did germinate and grow, although the density of the stand was not what we would like. It was progress, however small. We knew from the beginning that restoring native cover requires patience in the first years, and several seasons may pass before the stand resembles the vision with which we started.

In January, while the acreage was dormant, we set it afire to clear the debris and kill weed seeds. Now, a third growing season is about to begin, and we are hoping for a year of real progress, but we have learned not to expect too much, too fast.

We remain committed to our vision of a beautiful landscape of native grass, wildflowers and forbs surrounding the special pond. For now, wildlife use the area the way it is, and the pond water is clear and clean. Our friends and neighbors tease us by calling it our “weed patch,” but they too have enjoyed the increased presence of deer, rabbits, quail and waterfowl. We believe the vision will be realized and, if we are patient, beauty will emerge that will require little management for years to come.

John Hoskins, director



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**OUR MISSION:** *To protect and manage the fish, forest and wildlife resources of the state; to serve the public and facilitate their participation in resource management activities; and to provide opportunity for all citizens to use, enjoy and learn about fish, forest and wildlife resources.*









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Cover and left by Noppadol Paothong

### NextGEN

This section reports on goals established in *The Next Generation of Conservation*. To read more about this plan, visit [www.MissouriConservation.org/12843](http://www.MissouriConservation.org/12843).

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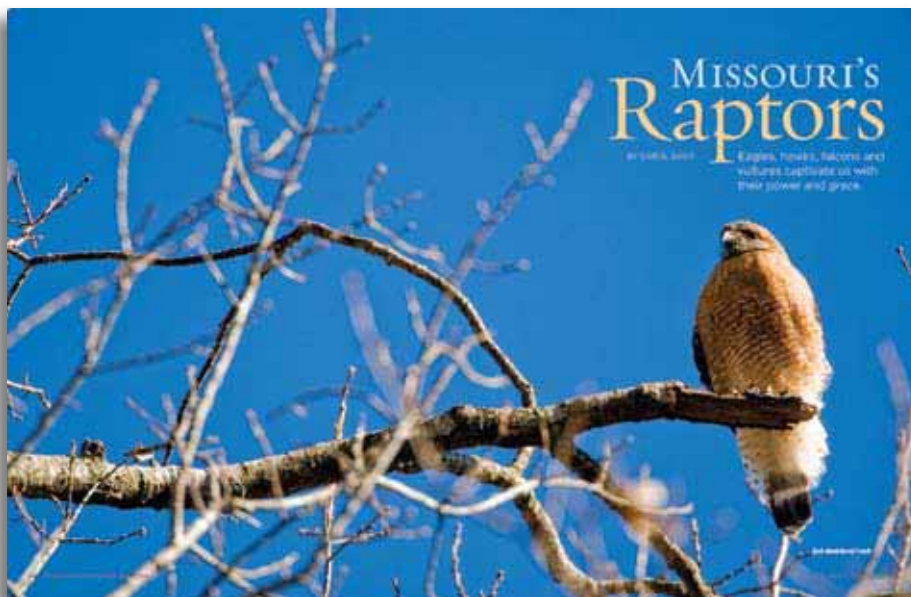
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## OUT OF ORDER

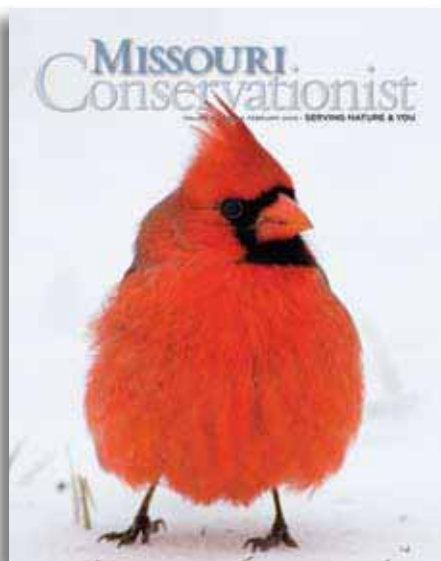
After reading the January 2009 article *Missouri's Raptors*, I must respond. The Integrated Taxonomic Information System ([www.ITIS.gov](http://www.ITIS.gov)) and the Cornell Laboratory of Ornithology ([www.birds.cornell.edu](http://www.birds.cornell.edu)) both reflect the reclassification of the New World vultures to the order Ciconiiformes (storks) rather than the previously classed order Falconiformes. As vultures eat carrion and do not actively hunt prey (as their lack of talons demonstrates), New World vultures have been reclassified under the Stork family.

While living in the greater Kansas City area, I volunteered for the Conservation Department from 1997 to 2004, at which time we prepared for our move back to Oregon. I so enjoy the *Missouri Conservationist* as it reminds me of our many years in the Midwest!

*Julie Shafer, Gleneden Beach, OR*

*Editors' note: "You are correct. In 1997, all New World Vultures, including Turkey Vultures, were transferred into order Ciconiiformes by the American Ornithologist's Union in the 41st supplement to the Checklist of North American Birds, and they are still grouped there by many authorities. However, the debate about New World Vulture classification rages on in the ornithological community. More recent analyses of molecular data,*

*structural characteristics (vultures have a more primitive ear bone structure than storks, which suggests that if they did come from a stork lineage, they probably branched off a very long time ago) and behavioral characteristics suggest that the relationship between vultures and storks may not be as strong as we thought, and that they may be better classified either back in Falconiformes, or into their own unique order. If you'd like to learn more about the debate around vulture classification, visit [http://](http://en.wikipedia.org/wiki/Turkey_Vulture)*



[en.wikipedia.org/wiki/Turkey\\_Vulture](http://en.wikipedia.org/wiki/Turkey_Vulture) or <http://vulturesociety.homestead.com/TVFacts.html>."—*Andrew Forbes, resource scientist (avian ecologist)*

I really enjoyed the January issue with all its pictures of Missouri birds. There were a lot of amazing facts about the raptors of Missouri. Keep up the good work.

*Jerry O'Neill, Wentworth*

## RED BIRD, WHITE WORLD

One of your most outstanding *Conservationist* covers [February]. With our ice/sleet/snow storm of 26/27 January, our bird feeders empty out daily. Of the many varieties of winter birds the cardinal, of course, stands out. While larger than most, they coexist at the "trough" with their smaller cousins—a trait the blue jays should learn. Again, great cover. We'll be mailing the issue to four of our grandchildren currently living in Belgium.

*Joe & Nelda Jeter, Lebanon*

## HIBERNATION & TORPOR

I enjoy reading the *Conservationist*, and, as a wild-life physiologist, I am always thrilled to see articles/notes about hibernation in the popular press. Your note in the December issue [A Deeper Sleep; Page 9] provides useful information about hibernation and also must have brought a big smile to the faces of my colleagues and students. I have corrected them so many times about the proper terminology related to hibernation that they now do it incorrectly just to harass me. Hibernation is NOT the same as "sleep." These are physiologically very different events. The physiological state during hibernation is called "torpor," and animals enter and arouse from torpor. In addition, torpor is not a yes/no proposition, but exists at different degrees (pun intended), depending on the relative decrease in body temperature, metabolism and associated physiological functions. Rather than "true" hibernation and "not really" hibernation, it is more accurate to refer to these as deep hibernation and shallow hibernation, respectively. Bears can indeed hibernate, but the depth of their torpor is very shallow.

*Tom Tomasi, professor of biology  
Missouri State University*

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## Reader Photo FIRST LOOK

Jay Wright captured this photo of a bobcat at Eagle Bluffs Conservation Area in Boone County. He and his wife, Laura, frequent the area to bird-watch and "look for any other wildlife we might see," said Laura, "but neither of us had ever seen a bobcat in the wild before!" According to Laura, the bobcat calmly watched Jay as he got out of the car to get closer for the picture. The cat allowed a few shots, then hopped down and ran off. "There were many turkey vultures on the ground near his perch," said Laura. "So we figure he was hanging close to a food source."



## behind the CODE

*A little learning has saved  
a lot of lives.*

BY TOM CWCYNAR

We are irresistibly approaching the moment when every licensed hunter in Missouri will be hunter education certified. In 1987, the Conservation Department passed a regulation that required hunters born on or after January 1, 1967, to have successfully completed a hunter safety course before they could purchase any type of firearms hunting permit. Hunters at least 21 years old were exempt from the requirement because of their birth date. Today, only hunters older than 41 are exempt. Inevitably the day will come when no hunter is exempt.

That's a good thing, because mandatory hunter education has prevented many injuries and deaths. The number of hunting incidents in Missouri steadily rose from 1963, the first year shown on the records to a peak in 1986, when 98 were reported. The number of hunting incidents began dropping dramatically in 1992, when any hunter under the age of 26 would have attended a hunter education course, and have declined steadily since. In 2008, only 15 hunting incidents were recorded, and none of those were fatal.

Between 25,000 and 30,000 Missourians attend hunter education classes each year. A huge organization of volunteer instructors and Conservation Department staff members teach them hunting safety, proper handling of firearms and hunters' responsibilities to landowners and laws.

Hunter education traditionally took at least 10 hours, typically spread over two or 3 days, but new hunters may complete the written portion over the Internet before attending a 5-hour field day. To learn more about online hunter education, go to [www.MissouriConservation.org/17844](http://www.MissouriConservation.org/17844).



## ASK THE OMBUDSMAN

**Q:** With all of our modern technology, why can't we have small-game hunting and fishing permits that are valid for one year from the date of purchase, regardless of when they are purchased?

**A:** It is possible, and some states do handle their permits that way. One disadvantage of that system is that it requires that each permit holder keep track of their own specific renewal date. With a common expiration date as we have now, the last day of February, it is easier for people to remember when to renew. It is also easier for us to remind them of the annual March 1 renewal date.

Small-game hunting and fishing permits can be purchased as early as December 1 for the following year. This allows them to be obtained for Christmas gifts, and the permit holder has a permit that is valid for 15 months.

**Q:** I am over 65 years old and thus exempt from needing an annual resident fishing permit. Am I also exempt from needing the White River Border Lakes Permit to fish on Bull Shoals Lake?

**A:** No, your age exemption does not cover the Border Lakes Permit or daily fishing tag or trout permit when or where those are required. You would not need the Border Lakes Permit unless you fish on the Arkansas portion of Bull Shoals, Norfolk or Table Rock lakes without an Arkansas fishing permit. If you stay on the Missouri side of the state line on any of those lakes, the Border Lakes Permit is not required.

Ombudsman Tim Smith will respond to your questions, suggestions or complaints concerning Department of Conservation programs. Write him at PO Box 180, Jefferson City, MO 65102-0180, call him at 573-522-4115, ext. 3848, or e-mail him at [Ombudsman@mdc.mo.gov](mailto:Ombudsman@mdc.mo.gov).



NOPPADOL PAOTHONG



## Species of Concern

### Eastern Massasauga Rattlesnake



**Common name:** Eastern massasauga rattlesnake

**Scientific names:** *Sistrurus catenatus canenatus*

**Range:** NE, NW and central Missouri

**Classification:** Critically imperiled

**To learn more about endangered species:** [www.MissouriConservation.org/8227](http://www.MissouriConservation.org/8227)

MISSOURI IS ON the southeastern edge of this venomous snake's North American distribution. Voles and deer mice make up 90 percent of adult massasaugas' diet. Although not aggressive, they will bite if disturbed. Female massasaugas bear four to 10 live young every other year in August or September. Adults are light to dark gray or grayish brown, with two dark stripes edged in white along each side of the head. They can grow up to 30 inches long, but most are much smaller. Massasaugas spend much of their time in crayfish burrows and are most often seen basking in the sun atop clumps of grass or in bushes in or near marshes or moist prairies in the flood plains of large rivers. Small, scattered massasauga populations have been documented in northern Missouri. If you see what you think is a massasauga, take a clear photograph of it and call your regional Conservation Department office (see Page 3).

PHOTO: JIM RATHER; ART: MARK RATHIEL

## Spring's Hallelujah Chorus

*Celebrating spring  
in a wetland near you*

For such tiny creatures, western chorus frogs pack a powerful vocal punch. Measuring no more than 1.5 inches

long, they nevertheless form choirs that fill the air. They are the first frogs to become active across most of Missouri, with males starting to sing when the surrounding air temperature is as low as 35 degrees. Also

amazing considering their tiny size, females lay as many as 1,500 eggs each spring.



## Hellbender Recovery Efforts

*Work moves forward  
on several fronts.*

Eastern and Ozark hellbenders have declined an average of 77 percent since the 1970s. Spurred by this alarming trend, the Conservation Department and numerous partners are moving on several fronts to understand and stop the decline. Besides continuing to check hellbender numbers in various streams, researchers are exploring the roles of the amphibian Chytrid fungus, hormone and heavy metal pollution, hellbenders' interaction with native and nonnative fish and physical deformities afflicting the giant salamanders. Biologists are working to perfect captive-rearing techniques,

understand hellbender genetics and learn how well captive-reared hellbenders survive in the

wild. If you see a hellbender in the wild, report it to Jeff Briggler, PO Box 180, Jefferson City, MO 65102-0180, 573-751-4115, ext. 3201.







## White-Bass Fishing

*Catch them on the run at Pomme de Terre Lake.*

White-bass fishing heats up at Pomme de Terre Lake each spring when these scrappy fish make their spawning runs up Lindley Creek and the Pomme de Terre River. Spring rains with temperatures in the 60s trigger the runs. County gravel roads provide some access for bank-fishing, while boat ramps off Highway PP near McCracken Bridge and Pittsburgh Park at the end of RA highway provide access to the lake's two upper arms. White jigs, silver spoons, crankbaits or anything else that resembles a minnow is a good bet for bait.



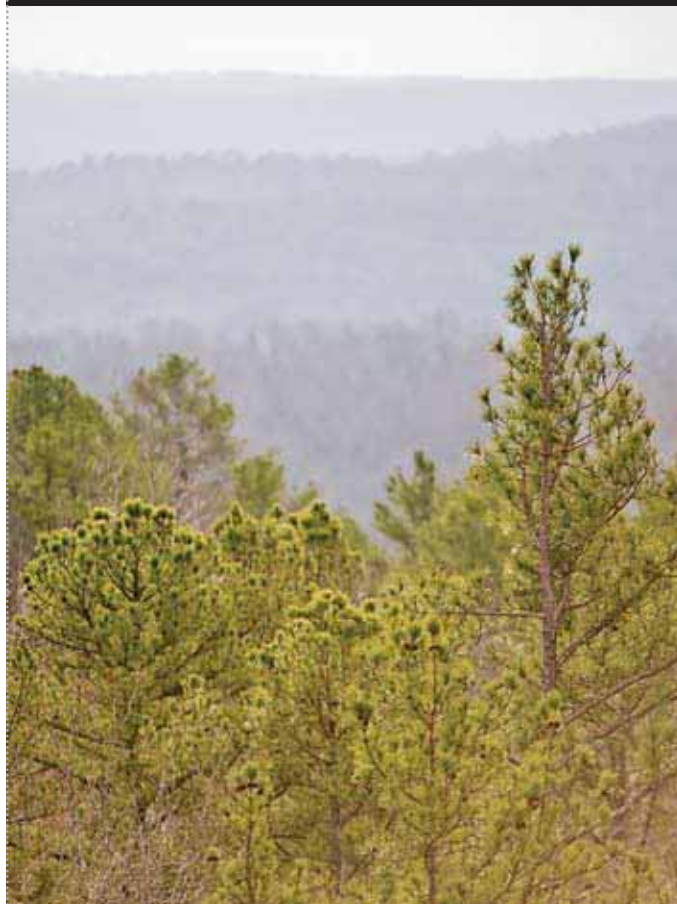
Spring peeper

## Walk on the Froggy Side

*Southeast Missouri is amphibian central this month.*

Spring arrives first in Missouri's Bootheel. Frogs are quick to notice winter releasing its icy grip, and they announce the joyful news with gusto. One of the best ways to enjoy the exuberant voices of spring is by taking a walk through a wetland area. The 1.2-mile Tupelo Trail at Otter Slough Conservation Area in Stoddard County has a wooden boardwalk to get visitors over swampy areas and a viewing deck with benches overlooking Otter Lake. The Boardwalk Nature Trail at Mingo National Wildlife Refuge gives visitors a dry 1-mile route through a cypress-tupelo swamp, and a 19-mile auto tour allows visitors to see more of the area at five overlooks. A brochure turns this drive into a self-guided tour. Call 573-624-5821 for information about Otter Slough and 573-222-3589 for information about Mingo NWR.

## Trail Guide



### HIKER AND HORSEBACK HEAVEN



HIKERS AND HORSEBACK riders might think they have died and gone to heaven as they tour Angeline Conservation Area's 37,000-acres. The 1-mile Lick Log Trail circles an Ozark creek's passage through oak-hickory and shortleaf pine forest, overgrown farm fields, dry, rocky glades and steep-sided rock "shut-ins." Pick up a self-guiding trail brochure at the Conservation Department's Eminence office for information about the area's plants and animals. Equestrian visitors can see much of the area from more than 25 miles of interior roads as well as a 9.5 mile multi-use trail. The area has frontage on the Jacks Fork and Current rivers and encompasses three designated natural areas. The wide range of habitats makes this area a great place to see migrating birds in the spring. Lichens and mosses adorn the rocky outcrops, and wildflowers abound. Primitive camping is permitted along roads and parking lots. This area has no other facilities.

**Area name:** Angeline CA

**Trails:** Lick Log Trail and 25 miles of interior roads

**Unique features:** Shut-ins, glades and a 40-acre sinkhole

**For more information:** Call 573-226-3616 or visit

[www.MissouriConservation.org/a9512](http://www.MissouriConservation.org/a9512)





## TAKING ACTION

*Troop 700 Earns Fishing Merit Badges*

**Group Featured:** Boy Scout Troop 700 in St. Joseph exclusively serves boys with special needs in the Pony Express Council of Northwest Missouri/Northeast Kansas.

**Group Mission:** The Boy Scouts of America program mission is to prepare youth to become responsible and participating citizens with the ability to make ethical and moral choices throughout their lifetimes.

**For More Information:** Visit [www.scouting.org](http://www.scouting.org) or call a local Boy Scout Council office to learn more about Boy Scouting programs. Offices are located in Columbia, Kansas City, St. Joseph, St. Louis and Springfield.

MEMBERS OF BOY Scout Troop 700 of St. Joseph recently earned their Fishing Merit Badges. The requirements for the Fishing Merit Badge were taught by Conservation Department Fisheries Regional Supervisor Harold Kerns and Eagle Scout Zach Kerns of Troop 60 in Savannah.

During the first session, the Scouts discussed fishing safety, tied basic fishing knots, and looked at various fishing lures, baits and fishing gear (rods and reels).

The much-anticipated second session was a fishing trip to a Missouri Western State University campus pond. Each Scout fished with a mentor (a Conservation Department employee, parent or volunteer) to provide assistance and support. All Scouts caught a fish—their first for some. First-timers were presented with First Fish Awards to commemorate the event. The Scouts and their families were then treated to a fish fry to demonstrate how something so fun to catch could result in a very tasty meal.—by *Harold Kerns*

## Earth Day Celebrations

*Check out the local festivities for this worldwide event.*

Earth Day was first celebrated in 1970 as a day of national environmental recognition, and it led to the creation of the U.S. Environmental Protection Agency. It has since grown into an international campaign focused on awareness and citizen involvement. The international date for the event is April 22, but local dates may vary. Join the celebration at one of these fun, family-friendly events!

**Columbia:** Columbia's Earth Day Festival will be held Sunday, April 19. The rain date is Sunday, April 26. For details, visit [www.columbiaearthday.org](http://www.columbiaearthday.org) or call 573-874-3932.

**Jefferson City:** The Department of Natural Resources will sponsor and host its 15th Annual Earth Day Celebration Friday, April 24, 10 a.m.–2 p.m., at the Capitol. For details, visit [www.dnr.mo.gov/Earthday](http://www.dnr.mo.gov/Earthday) or call 800-361-4827.

**Joplin:** Wildcat Glades Conservation & Audubon Center will hold an Earth Day/Energy Festival on Saturday, April 18, 10 a.m.–3 p.m. For details, visit [www.wildcatglades.audubon.org](http://www.wildcatglades.audubon.org) or call 417-782-6287.

**Kansas City:** Bridging The Gap will host the 2009 EarthFest and EarthWalk on Saturday, May 9 at Theis Park, in partnership with KCMO Parks and Recreation and StoneLion Puppet Theatre. The EarthWalk is at 10 a.m. The EarthFest is from 11 a.m.–4 p.m. For details, visit [www.earthdaykc.org](http://www.earthdaykc.org) or call 816-561-1061 ext. 128.

**St. Louis:** The 20th Annual St. Louis Earth Day Festival—the oldest and largest Earth Day Festival in the Midwest—will be held April 26, 11 a.m.–6 p.m., at Forest Park on the Muny Grounds. For details, visit [www.stlouisearthday.org](http://www.stlouisearthday.org) or call 314-961-5838.





## Trout Park a Gift

*Benefactor wanted to conserve and share this gem.*

In 1959, Maramec Spring Park had its first trout season, and this year the James Foundation and the Conservation Department will be celebrating 50 years of trout fishing at the park. What's often called Missouri's fourth trout park differs from the rest in that the park is privately owned. The property belongs to the James Foundation and a half-century ago they teamed with the Conservation Department to establish a put-and-take fishery there.

The land was a gift to the Foundation by Lucy Wortham James. She was the granddaughter of William James, the founder of the ironworks built on the site of Maramec Spring in 1826, and heiress to the R.G. Dunn (of Dunn and Bradstreet) fortune. It was her wish that the public be allowed to enjoy regulated access to the area. She died in 1938 and in her will she wrote:

*"It is a spot of great natural beauty, which has been in the possession of my family for generations, and, through our permission, the spring basin has been and is now used by the public as a pleasure ground under such regulation and supervision as to insure that the public shall be seemly and shall not mar its natural beauty. I wish to continue such permissive use by the public and to keep its beauty unmarred."*

In 2008, anglers at Maramec Spring Park purchased 58,229 daily trout tags, and the Conservation Department stocked 146,544 trout in the park's waters.



## Osage Accesses to Paddlefishing

## Scout it Out



**Name:** Paddlefishing access to the Osage River

**Location:** Eight conservation accesses along the Osage River between Bagnell Dam and the Missouri River



PADDFISH SEASON BECKONS hardy anglers looking to tackle fish that can weigh up to 100 pounds. These behemoths are vulnerable to anglers' hooks when they concentrate near suitable spawning grounds each spring. Naturally, paddlefishing requires heavy equipment. No bait is necessary, however, because paddlefish eat only microscopic plankton. The only reliable way to catch them is by snagging them with hooks dragged through the water.

The Osage River offers miles of water open to paddlefishing. Eight conservation areas provide boat access to the river between Bagnell Dam and the Missouri River. The most popular among paddlefish anglers are Bagnell Dam, Pikes Camp, Mari-Osa, and Bonnots Mill accesses. All provide a concrete ramp for trailered boats, parking lots and privies or restrooms.

Paddlefish season runs from March 15 to April 30. Snagging is legal on the Osage River from the Highway 54 Bridge, about 1.3 miles downstream from Bagnell Dam, to the Missouri River. Check regulations for size and bag limits.





## Wildflower Hunting

*Stalk woodlands early to find the first blooms of spring.*

Spring woodland wildflowers grow, bloom and set seed before the first leaves appear on the trees overhead. These opportunistic flowers brighten the forests and woodlands and are incentive enough to organize a family hike on a warm spring afternoon.

The first woodland wildflowers may debut as early as late February, but March is a dependable month to see the early bloomers. Look first for the aptly named Harbinger of Spring along streams and near the bottom of woody slopes. Spotting them requires a keen eye, for the plants begin to flower when they are only 2–3 inches tall, barely high enough to clear the leaf litter. Spring beauty flowers early, too, but it is about twice as tall. The flowers have white or pink petals with pink veins. Other species you'll find interesting include Dutchman's breeches, with its intricate foliage and flowers that resemble trousers; bloodroot, with its red sap and flowers that last only one day; and pussytoes, with flower clusters as fuzzy and soft as kittens' feet.

Learn more by going to Common Spring Wildflowers on the Conservation Department's Web site: [www.MissouriConservation.org/8419](http://www.MissouriConservation.org/8419).



Bloodroot

## Build a Birdhouse

*Complete this simple project to attract birds this spring.*

Make it easier for wild birds to nest and raise their young by assembling houses for them.

Many species are attracted by dwellings of unique dimensions, shapes and materials. For example, a difference of 1/8 of an inch in entrance hole size determines whether a box is best suited for wrens, nuthatches or bluebirds. Where you mount the box also is important. Building a bird house is a simple and satisfying woodworking project. It doesn't require power tools or fine lumber, but a good set of plans helps. Find free bird housing plans and strategies at <http://free.woodworking-plans.org/bird-house-plans.html>.

## BIRDS OF A FEATHER

### Housing Purple Martins

IF PURPLE MARTINS could send text messages to humans, they'd sign off with "BFF" (best friends forever). Even before this country was settled, *Progne subis* and *Homo sapiens* had cordial relations. Native Americans hung hollow gourds near their settlements to offer the birds housing, and now you can find nest boxes in many Missouri towns, parks and cities. The eastern subspecies, which we have in Missouri, is the only bird that depends entirely on human-provided housing. Modern purple martin houses look like little condominiums. The birds seem to like to nest in groups, but each pair nests in a separate compartment.

Purple martin landlords should have their dwellings ready by at least mid-March, in time for early arrivers, often called "scouts." If these early returning older birds find their former nest boxes adequate, they'll stay and others will follow. This fidelity to successful nesting sites, which is common for most migratory birds, explains how purple martins have become so dependent on human housing projects.

What besides delight in their skimming flight do purple martins offer us in return for their housing? Many believe purple martins help control mosquitos. Studies show, however, that purple martins seldom consume mosquitos, even where these insects are plentiful. For more information about purple martins, visit [www.purplemartin.org](http://www.purplemartin.org).



Purple martin



## EQIP Helps Clean Streams

*This farm bill program offers financial and technical help.*

Ranchers and farmers who are concerned about the quality of water running from their land into nearby streams can get help through the Environmental Quality Incentives Program. This federal program promotes agricultural production and environmental quality by offering financial and technical assistance in dealing with challenges to water quality. Landowners can get help removing excess sediment deposited in drainage ditches by last year's floods and handling animal waste. EQIP applications are accepted year-round. For more information, contact a regional Conservation Department office listed on Page 3 or the nearest USDA Service Center.



lovers in Omaha, Neb., and on June 27 Missouri River Relief returns to Sioux City, Iowa, to help with the cleanup they helped launch last year. On Aug. 22 they will help out at Operation Clean Stream on the Meramec River, and Sept. 19 is a cleanup in Jefferson City, celebrating the 20th anniversary of the Missouri Stream Team program. The last event of the year is a learning/cleaning event Oct. 2 and 3 in Kansas City. Visit [www.riverrelief.org](http://www.riverrelief.org) for details and updates of all these events.

## 2009 Big-River Cleanup

*The schedule is set and you can get involved!*

Missouri River Relief, the Missouri Stream Team that has adopted the Missouri River, has a 2009 cleanup schedule with events from Yankton, S.D., to St. Louis. The year's first cleanup is at the confluence of the Osage and Maries rivers March 7. Next up is the Heritage Trail in Kansas City March 21. On March 28 river cleaners will help at the Confluence Greenway Cleanup in St. Louis. April 4 is Project Blue River Rescue in Kansas City. On May 9 Missourians will join South Dakotans below the Gavin's Point Dam. May 29 and 30 will find river-

## Stream Team



### Reeds Spring High School



THIS ILLUSTRIOUS STREAM Team received the President's Environmental Youth Award in 2008. The preceding year was a particularly good one, even by their high standards. They monitored water

quality after school and on weekends, studied stream issues that affect their community and researched and designed a water-monitoring project. They traveled to Jefferson City to discuss local water quality issues with the State Legislature. All this work earned team representatives a tour of Washington, D.C., where they received their award from President George W. Bush and his wife, Laura. Team members also received high school and college credit for some of their work. "It is very challenging," said Stream Team 432 sponsor Mike Collins. "Students learn to manage their time, solve problems that make a difference in their community, as well as develop critical thinking and organizational skills. We want to produce lifelong learners."

**Stream Team Number:** 432

**Date formed:** Sept. 20, 1993

**Location:** Railey Creek, Stone County

**For more info about Stream Teams:** [www.mostreamteam.org](http://www.mostreamteam.org)





## Our Glorious Forests

### SUGAR CREEK CA



**Size:** 2,604 acres

**Location:** Adair County, 4 miles southwest of Kirksville

**Habitat types:** Mainly forest with old fields and cropland

**Facilities and features:** Disabled-accessible parking lot and restroom, primitive camping, hiking trail, designated horse trail (permit required for groups of 10 or more riders), fishing pond and intermittent streams (Sugar Creek and Elm Creek)

**Find more info:** [www.MissouriConservation.org/a7307](http://www.MissouriConservation.org/a7307)

## Tree Maintenance Grants

*TRIM program benefits community forests.*

Tree Resource Improvement and Maintenance (TRIM) grants help Missouri communities take care of their public trees. City and county agencies can get TRIM cost-share for tree inventory, planting and pruning, as well as for removal of hazardous trees. TRIM program training teaches public grounds employees how to care for community forests. The application deadline is June 1. For grant applications and more information, write to Community Forestry Coordinator, Missouri Department of Conservation, PO Box 180, Jefferson City, MO 65102-0180.



## Clean Drinking Water

*Healthy forest cover makes a difference to our watershed.*

Next time you enjoy a drink of water, raise your glass to Missouri's forests. Without them and their managers, we'd have to work harder and pay more to have clean drinking water. More than 40 percent of Missourians get their water from a surface water intake—that means a lake or river. Landowners can protect lakes and rivers by planting trees along banks, not cultivating up to the stream bank, logging carefully in riparian zones and keeping livestock out of streams. Everyone can help by respecting streams when they're around them. Don't run ATVs in and around creeks, and keep septic systems in good working order. Get involved with your water provider and help it ensure protection of your watershed and drinking water supply.



IN THE EARLY 1900s, northeast Missouri's coal mining industry consumed thousands of acres of local forest for mine props and timbers. Today, a large part of that once depleted forest is known as a turkey hunter's paradise. Sugar Creek Conservation Area near Kirksville features healthy hardwood forests, with a few open fields on ridges and along

Sugar Creek. The area's forest practices are designed to improve wildlife habitat, maintain watershed quality, and enhance tree growth, quality and species composition. Wildlife management practices include crop fields, which serve as food sources for wildlife, and timber harvesting to improve forage and cover. Signs of disturbance from harvesting are only temporary and soon disappear as the forest rebounds. White-tailed deer and wild turkey are abundant on the area, as are numerous songbirds and a variety of mammals. To prepare for your visit to Sugar Creek CA, download the area's brochure and map at [www.MissouriConservation.org/a7307](http://www.MissouriConservation.org/a7307).





## “Skimp” on Food Plots

*Light seeding and idling saves money.*

When it comes to managing food plots, less is more—for you and for quail. Leaving half your food plot idle (undisked, unmowed and unplanted) results in summer brood habitat. On small plots



(less than one-quarter acre), idle the entire plot and disk every other year. Idle areas grow up in annuals that provide food and cover. Also,

reducing your seeding rate by a third or half saves money and promotes “seedy” annuals—as good for quail as planted crops.

## Gear Up for Prescribed Burns

*Several sources lend or rent many types of equipment.*

Prescribed fire can enhance your woodland and grassland habitat, but conducting a prescribed burn safely and effectively requires the proper training and equipment. After you have completed prescribed fire training, ask for torches, rakes, backpack water sprayers and other types of equipment at many county soil and water conservation district offices or your local Quail Unlimited, Pheasant and Quail Forever or National Wild Turkey Federation chapters. These sources may also offer seeding equipment, all-terrain vehicle sprayers and culti-packers. Equipment use is typically free



or available for a nominal rental fee. Contact your local soil and water conservation district or your regional Conservation Department

office (see Page 3) to ask about local prescribed burn training workshops and to discover the kinds of equipment offered in your area.

## Local Conservation Opportunities

## On the Ground



Landowner John Heckman (left) and MDC Forester Gus Raeker

“WE ABUSE LAND because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect.” This quote by Aldo Leopold, the father of American conservation, is a favorite of John Heckmann’s. John practices what Leopold preached. His 800 acres in Warren and Montgomery counties lie within the Missouri River Hills Conservation Opportunity Area. Conservation Opportunity Areas are places where landowners, agencies and nonprofits can work together to do the most good for Missouri’s wide variety of habitat types and native species. Although John is motivated to practice good conservation on his own, he also gets added help through various cost-share programs. To see if your property lies within a Conservation Opportunity Area, visit [www.MissouriConservation.org/16742](http://www.MissouriConservation.org/16742).





## Butterfly Gardening

*Free booklet shows how to use native plants to attract butterflies.*

Want more butterflies in your garden this summer? The recipe is simple. Provide them and their caterpillars with host plants, most of which are native to Missouri. Our free publication, *Butterfly Gardening and Conservation*, features step-by-step instructions on how to design and plant a garden that will attract and sustain butterflies, year after year. Chock-full of full-color photos, the booklet includes sections on conducting butterfly surveys, designing around sun and wind, planting adult nectar sources, furnishing feeding and breeding grounds, sketching plans and controlling pests. Sections on accommodating nature and conserving butterflies in your community help you become a champion for one of Missouri's most beautiful insect species. You can download this booklet from the Web at [www.MissouriConservation.org/8274](http://www.MissouriConservation.org/8274), or order a printed copy by writing MDC, *Butterfly Gardening and Conservation*, PO Box 180, Jefferson City, MO 65102 or e-mail [pubstaff@mdc.mo.gov](mailto:pubstaff@mdc.mo.gov).



## Conservation Frontiers

*Complete milestones to earn outdoor gear.*

Looking for new outdoor adventures this spring? The Conservation Frontiers Program offers dozens of ways to explore and conserve natural Missouri. The guidebook starts with nature walks and field trips, but you can begin with any topic, such as forestry or wildlife studies. Once enrolled in the program, you complete activities to qualify for special Frontiers awards—compasses and water bottles, for example. Anyone can participate in the program, but children ages 5 to 17 need an adult sponsor. For more information, write to Education Programs, Conservation Frontiers Program, PO Box 180, Jefferson City, MO 65109-0180.

## NATURE ACTIVITY

### Powder Valley Bird Bash



MARCH IS A GREAT time to learn about and celebrate birds. Many of our favorite migratory birds are winging their way back to Missouri from wintering grounds in Mexico and Central America.

Our state's year-round avian residents have begun their spring courtship rituals, too. Join Powder Valley Conservation Nature Center for a spring celebration of birds. The center's Friday Night Live: "It's a Bird Bash!" will feature games, bird crafts, a bird identification scavenger hunt and many other bird-related activities. Visitors will get an eye-to-eye look at Missouri's powerful birds of the sky when a group of licensed Missouri falconers exhibit their live raptor hunting partners! All ages are invited to enjoy this free event.

**Program:** Friday Night Live: It's a Bird Bash!

**Where:** Powder Valley Conservation Nature Center at 11715 Cragwood Road in Kirkwood

**When:** Friday, March 27, 6–9 p.m.

**Registration:** No registration needed, and the program is free. Call 314-301-1500 for more information.



Common yellowthroat male

Philosophers define the golden mean as the desirable middle ground between excess and deficiency. They suggest we strive for it in all things. Even though hunters and wildlife biologists would prefer to have wildlife populations near “excess,” we likely have arrived at the golden mean in our state’s turkey population.

Along the way, we’ve bumped up against both extremes. Early in our state’s history, turkeys took advantage of Missouri’s great mix of forest and open land to multiply like crazy. They were so numerous that people didn’t even bother to raise them. If someone wanted a bird for the pot, it was easy to go get one.

Then we went the other way. Starting about 1900, turkey numbers began to decline, so much so that hunting for them was halted in 1937. The Conservation Department tried to stop the decline, which they attributed to logging, open grazing and market hunting, by introducing about 14,000 game farm turkeys, but their efforts never took root. At our low point we might have been down to as few as 3,000 birds tucked away in remote areas of the Ozarks.

That’s way too few.

We got smarter, though, and learned that game farm birds just don’t have the moxie to make it in Missouri. Only true wild turkeys do well here. The next management program involved capturing some of our few remaining wild turkeys. We then used this wild brood as a source for turkey introductions in suitable habitats throughout the state. From the program’s start in 1954 to its termination in 1979, the Department trapped more than 2,600 turkeys and released them to 142 areas in 87 Missouri counties.

The management program must have been sound—and the mathematics certainly were—because the wild turkey population boomed. From about 4,000 at the beginning of the 1960s,

# Turkey Mathematics +

MISSOURI’S TURKEY POPULATION HAS ACHIEVED ITS  
**GOLDEN MEAN.** GOBBLE! GOBBLE!

by TOM Cwynar







**A Missouri hunter with his turkey in May 1961 — long before our turkey population peaked and eventually met what wildlife biologists call “environmental resistance.”**

we might have approached as many as a million wild turkeys in Missouri when the population was peaking in the 1980s.

The number of turkey hunters grew in response to this bounty. During the first modern turkey season which took place April 27–29, 1960, hunters harvested only 94 birds in the 14 counties open to hunting. The length of the seasons, the number of counties open to hunting and the harvest increased through the years. We now have a three-week long spring season and all counties are open to hunting. The spring harvest has at times exceeded 50,000 birds.

Missouri’s turkeys were doing so well that, starting in 1978, the Department allowed a fall season. Turkey hunters too fidgety to wait until spring came out in droves for the chance to bag a bird for Thanksgiving or Christmas dinner. During the peak years of 1986 to 1989,

fall hunters harvested from 20,000 to 30,000 turkeys a year.

### **After the Peak +**

Understanding that we had a peak in our turkey population is important. When turkeys were being introduced throughout the state, they found ideal habitat and fewer predators, and their numbers naturally expanded exponentially. The turkeys not only filled good habitat, they showed up unexpectedly in places where habitat was considered merely fair.

Eventually, however, our turkey population encountered what wildlife biologists call “environmental resistance.”

“Essentially, they reached a natural limit,” said Dr. Tom Dailey, the Conservation Department resource scientist who is the state’s top turkey biologist. Dailey explained the principle that wildlife populations can’t grow forever.

“Whenever you have a booming population,” he said, “environmental resistance, which includes predation, disease, malnutrition and habitat limitations, will catch up to the population and limit it.”

“We have different habitat and a different predator community than we had 30 years ago,” Dailey said, “which means that we don’t have the turkey conditions we had 30 years ago. In short, things are not as good as they used to be for a turkey.”

### **The Boom is Over +**

That doesn’t mean, however, that a bust will follow the boom. Conditions are still great for turkeys in Missouri and we can boast of having some of the best turkey hunting in the country.

“It’s not that we’re in a long-term down trend,” Dailey said. “It’s just that we’re no longer in an uptrend. The problem is that people seem to compare everything to the uptrend.”

What they should expect, instead, is a fairly stable population that will fluctuate within our golden mean. Instead of booms and busts, Dailey said, we will have a population that declines or increases in response to spring and summer weather conditions.

“When it comes to how many turkeys you see this year,” Dailey said, “it’s really about the weather, and lately the weather has not been good for turkey production.”



MDC FILE PHOTO





MDCHFILEPHOTO

Dailey said we've experienced what he hopes is an unusual bad stretch of weather for turkeys. He cited cool, wet conditions during spring 2005, a 2007 "Easter freeze" that likely killed turkey eggs and that knocked down acorn production for two years, ice storms in December 2007 and January 2008 that stressed birds during winter and record rainfall throughout much of the state during 2008.

"I think turkey hunting will be a lot harder this year," Dailey said. "Hunters aren't going to see as many jakes, they're not going to see as many 2-year-olds, and because of poor production since 2004 they're not going to see many of those older age classes. What's more, they're not going to hear as much gobbling, which is really important to turkey hunters."

A few hunters might bypass the season because they heard that turkey numbers are down. Other hunters might go out and try

their luck but won't hunt as many days because they're not going to see or hear as many turkeys. In 2008, 42 percent of spring turkey hunters surveyed rated the season as "good" or "excellent," down from 55 percent in 2005.

You might think that the reduction in hunters and harvest might help boost the population, but Dailey said our spring turkey season regulations are designed to minimize the effect of hunting on year-to-year turkey abundance. The key is that our regular spring turkey season puts hunters in the woods during the second peak of gobbling activity, after most turkeys have had a chance to breed. This ensures a good supply of poults (young turkeys) to replenish the turkey population.

"Reducing the bag limit in spring," he said, "would have little effect on the fall population because 99 percent of the spring harvest are males and they are just replaced by new turkeys—poults."

**A Missouri Department of Conservation turkey release in November 1966. The Department spent 25 years capturing and releasing wild turkeys to 87 counties all over the state.**



**Missouri's great turkey seasons in the past have lead to excellent hunting opportunities for all sorts of hunters, including disabled hunters.**

Reducing the bag limit to one spring turkey could help redistribute hunting success as successful hunters leave the woods after killing one bird, reducing competition for those with unfilled tags. Few hunters, however, have shown support for redistributing hunter success.

OK, then, at least a reduction in fall turkey hunting seems like it would translate into more turkeys for spring hunting, since the harvest includes both male and female turkeys.

"Even if we didn't shoot some of those birds in the fall," Dailey explained, "the notion that they all would survive until spring is not true because there is some natural mortality over winter from predation, bad weather, malnutrition, disease and other factors."

Because the fall firearms season takes place before the deadly effects of winter can take their toll, the fall harvest somewhat replaces winter natural mortality.

Besides, the fall harvest takes only a small percentage of the state's turkey population, which is currently estimated at about a half-million birds. The 2008 fall harvest, for example,

was only 7,391 birds. Although the fall harvest could have noticeable effects locally, say in a neighborhood or on a heavily hunted conservation area, its effect on the statewide population is almost negligible.

According to the most recent Missouri Wildlife Harvest and Population Status Report, authored by Dailey, the fall hunting harvest could "safely" be as high as 50 percent of the spring harvest without compromising the quality of the spring gobbler hunt. In 2008, the fall harvest was only 16 percent of the spring harvest, well short of the amount necessary to trigger any reevaluation of the fall season.

### **What Can We Do? +**

Dailey likes to tell the story of a hunter who approached him at the end of a public meeting about a local downturn in turkey numbers and said, "You're not going to do a darn thing, are you?"

"I really couldn't respond," Dailey said, "because we're already doing all that we can."

It's because of Conservation Department efforts, citizen involvement and cooperative



landowners that we have as many turkeys as we do. The 25-year translocation effort allowed turkeys to establish themselves in every county of the state. We made it possible for a population boom that made Missouri the envy of the nation in turkey management.

Even though one or two states may have since surpassed Missouri in total harvest, we still can boast of the best quality turkey hunting. That's because we've fine-tuned the timing of our spring turkey season to ensure that turkeys have a chance to breed, but also increases the likelihood that hunters will hear gobblers and have a chance to call them in.

Our state's turkey hunting regulations are guided by the Missouri Wild Turkey Harvest Management Plan, which was created in 1998 by a committee of citizens and biologists assembled by the Conservation Commission. Each year the Regulations Committee and the Conservation Commission review regulation recommendations that are based on data collected by the Department's.

"Our annual November review of turkey status is one of the most important tasks," said Regulations Committee Chairman Dave Erickson. "In addition to biological considerations, we thoroughly review hunter input from surveys, letters and e-mails."

Dailey said the Department has one of the nation's most comprehensive approaches to maintaining quality turkey hunting. He said that it takes several staff and a small army of volunteers to conduct annual evaluations which take into account harvest data, hunter attitudes and counts of poults and gobbling activity.

"The Department is ready to respond with regulatory changes if we see evidence that the turkey population and hunting quality take a long-term turn for the worse," Dailey said. "It's not necessary yet, though. We are in a wait-and-see-and-hope mode."

What he is hoping for is a few consecutive years of drier, warmer springs. "We've got a good base turkey population, and we've been working with the USDA Farm Bill, the National Wild Turkey Federation and other game bird organizations to increase crucial nesting and brood rearing habitat. Everything is in place for a nice bounce in the turkey population, but weather is the key, and that's out of our control." ▲



NORPAOL PACHONG

**Although one or two states may have surpassed Missouri in total harvest, we can still boast of the best quality turkey hunting.**

## GROUNDS FOR BOUNCE BACK

Landowners can set the stage for a turkey comeback when we have good weather by increasing the amount of nesting and brood-rearing habitat on their property.

Mature forests do not make good turkey habitat. Dailey suggests thinning forests to open up the canopy, allowing more sunlight to hit the forest floor. This in turn promotes the growth of grass, forbs and legumes between the trees. This type of woodlands management is going on in many areas to benefit turkeys, quail and other ground-nesting birds.

"I'm talking aggressive thinning," Dailey said. "It's cutting out cedars and removing hardwoods to go from forest to woodland and prescribed fire for maintenance. That's what's best for turkeys."

The Conservation Department has partnered with the National Wild Turkey Federation, Quail/Pheasants Forever, Quail Unlimited and the Ruffed Grouse Society to help fund turkey habitat restoration efforts in Missouri. To learn more about the program, contact a private lands specialist through your regional office. (Numbers are listed on Page 3).









# THERE'S NO PLACE LIKE CLOSE-TO- HOME

urban conservation  
areas OFFER CITY FOLKS  
a TASTE OF NATURE.

by LUANN CADDEN photos by DAVID STONNER



**T**iny dry seeds grazed my fingertips as I pushed bluestem grasses aside and gazed over the prairie from the trail where I stood. I turned my head to make sure my little shadow was beside me.

“Mom, I can’t see anything!” Rose, my 4-foot-tall daughter, complained. When she parted the itchy grasses lining the trail she was greeted with an endless sea of stems. We moved on until we found a vantage point we both could enjoy. We lingered there, admiring a field of tall grasses and wildflowers.

We were at the Mark Youngdahl Urban Conservation Area in St. Joseph. I like to think of the area as a park, although it’s not the kind of park where you’d find swings and jungle gyms. This was more of a natural playground. The best thing about it was that it was close to home; in fact it was just across the street from our grocery store.

Some of the busiest streets in the city border the 85-acre area, but it still has a rural feel. You not only can immerse yourself into wild prairie land, but you often get glimpses of wild animals, including white-tailed deer. I especially like the scenic views of rolling hills filled with grasses

that sway as one with even a gentle breeze. This area also has ponds and both dusty and paved trails, as well as a picnic shelter.

The Missouri Department of Conservation has conservation areas totaling nearly 800,000 acres throughout the state. Much of this public land is in rural areas and provides excellent opportunities for hunting and fishing. To serve the outdoor needs of people in our larger cities, however, the Department has also established a number of urban conservation areas.

These are not the same as conservation nature centers, which are modern facilities that primarily focus on nature education. Urban conservation areas usually consist of small pockets of land tucked within neighborhoods and suburbs. They focus on allowing people to experience nature—without a lot of frills. They are peaceful places where you can enjoy a daily walk and an afternoon adventure.

They allow people who live in the city to occasionally listen to the songs of the eastern meadowlarks, see wild turkeys strutting in the spring and smell the earthy aroma of forest land. They are also great places for children to learn that creeks don’t stop at the city limits and that owls aren’t just found out in the deep, dark woods.

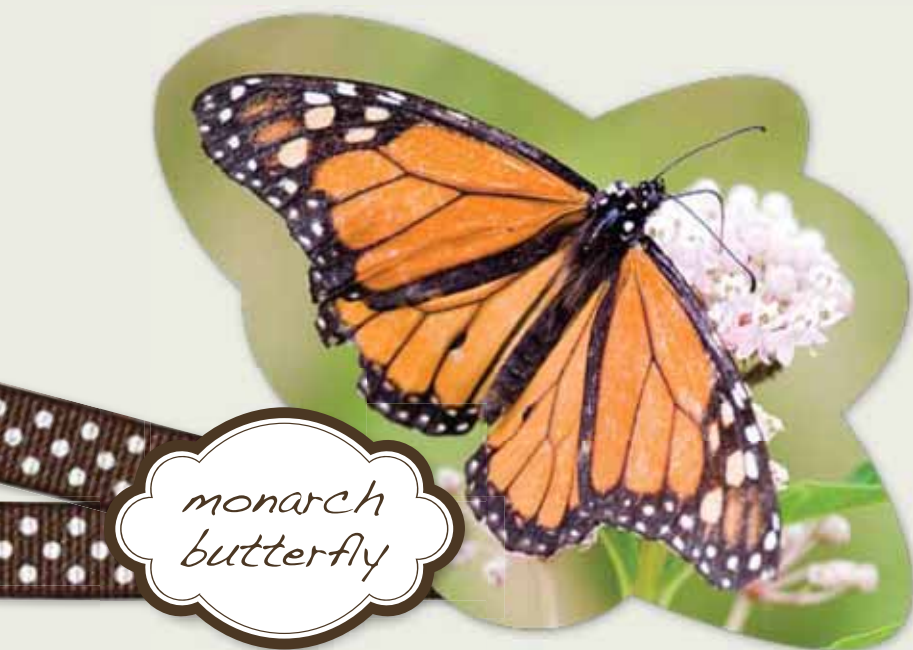
## Little Prairie in the City

I had hoped to take Rose to a conservation area out in the country where we could look for migrating monarch butterflies clustered in trees and feeding across acres of asters. It was my way of getting Rose outside and away from Spongebob Squarepants for a while.

As so often happens, however, time intruded. In the rush between the school bell, dinner and gymnastics there just wasn’t enough time to run out of town to look for butterflies.

I was disappointed, but then I remembered our urban conservation area. It had fields of asters and was only a 10-minute drive from our house. You might call it a local solution.

At the urban prairie, Rose and I talked about Laura Ingalls Wilder’s stories about living on a prairie in the 1830s. We held hands as we







searched for butterflies and imagined she was the character Laura and I was Ma. The tall grasses brushed our cheeks and scratched our legs and the dry prairie earth crunched under our feet as we walked. It was like reliving history.

Our search for monarch butterflies gave us a good excuse to explore the wild land. Even though prairie grasses, a ruddy duck and the fuzzy leaves of mullein distracted us from our original pursuit, we eventually found our orange-and-black beauties clustered on a stand of common milkweed. It was the perfect end to a wild urban adventure.

### Natural Character

I've visited several urban conservation areas, and each has its own blend of charm and beauty. For example, the **Jim Bridger Urban Conservation**

**Area** in Blue Springs boasts a beautiful forest stream and feels very rural, even though busy Highway 7 is only a short distance away.

The rocky trail along the stream has an Ozark feel and is lined with prickly pear cactus. In spring, the stream flows smoothly over rock shelves, bubbles in stair-step waterfalls, and dips down between the rocky walls that channel it. Kinglets often accompany you on your hikes there.

The urban conservation area also offers you plenty of chances to admire bird craftsmanship. Its diverse habitat might house the basket nest of the oriole, the shrubby nest of the cardinal, or the flat flimsy nest of the mourning dove. I like to leave the iPod at home and listen to the chorus of songbirds instead.

**Hinkson Woods Conservation Area** in Columbia is a natural resting area when you

**LuAnn Cadden and her daughter, Rose, at the Mark Youngdahl Urban Conservation Area in St. Joseph.**





are hiking the Katy Trail in the summer. This 70-acre area conveniently connects to the MKT trail between trail miles 3.5 and 4.0. Take a seat on one of the benches along the trail and enjoy the view of forest, old fields and grasslands. You're apt to spy a deer grazing or a red-tailed hawk perched above Hinkson Creek.

When the leaves fall from the oak and hickory trees at the **August G. Beckemeier Conservation Area** in Chesterfield, you can enjoy a beautiful view of the Missouri River from the bluff-side trail. If the weather is nice, pack a lunch and eat in the picnic area. In the winter, a fresh snowfall will open your eyes to braided trails of turkey, deer, coyotes and other animals.

### Part of Your Neighborhood

Taking children to an urban conservation area gives them a chance to learn about nature in ways that aren't possible by gazing at pictures of stunning landscapes or watching television programs about nature. They can learn that nature doesn't only exist in faraway places like the Himalayas or the Amazon rainforest; it underlies their city, their neighborhood, and even their own backyard.

It's an easy transition from listening to a chorus of American goldfinches as they feast on purple coneflowers at an urban conservation area to noticing the same bright yellow birds singing from treetops in the backyard. After kids see raccoon tracks in the mud along the pond at the conservation area, they

**Taking children to urban conservation areas teaches them how easy it is to connect with nature, and that it's easily accessible.**





might better be able to guess what kind of creature the family dog was barking at during the night.

They might also learn to connect how what they do in their own backyards may affect nature in other places. I'm thinking of the trash that people have to pick up at Hinkson Woods Conservation Area. It wasn't deposited there, but it found its way there. We never escape our connections to nature.

I wonder if a similar realization prompted Julia Brooke and her two sons to join a recent No MOre Trash! cleanup at the Youngdahl Conservation Area. Julia said she and her husband used to explore the shrubby land before it was donated to the Conservation Department, and she's doing her best to keep her family linked to the area.

Each day that the weather is bearable, Julia and her sons, Jacob and Ben, start their home-school day on the trails of the conservation area.

"It's a mind-clearing way to start the day," she said.

Julia described how their walks often lead to discussions of nature and the wildlife they see on the trail. Jacob even brings his digital camera and has taken some great photos of a group of Eastern bluebirds on the area. Sometimes they pull a little red wagon loaded with a cooler and charcoal to one of the park's pavilions for a picnic lunch.

The family even started a summer school program for the neighborhood church which focuses on the Youngdahl area. Each week the children travel together to the area to explore and play in the outdoors.

## Finding Urban Conservation Areas

Almost anyone whose shoes beat a busy tune on pavement most days can find some relief at a nearby urban conservation area.

You can find a conservation area near you by viewing our Conservation Atlas online at [www.MissouriConservation.org/2930](http://www.MissouriConservation.org/2930) or by calling one of our regional offices listed on Page 3. Before

venturing out to a new area for the first time, it's a good idea to call your regional office to get specific information and traveling directions. This is especially helpful for those areas that are a little—but not too far—off the beaten path. ▲

we never escape  
our connections  
to nature



*butterfly  
weed*





Federal excise tax collected on hunting and fishing equipment is returned to the states, based on the number of paid permit holders. Those who do not purchase at least one permit see their tax dollars sent to other states.





# 2009 REGULATIONS Update

Tough economic times affect regulations and services.

by DAVE ERICKSON

A year ago when the Regulations Committee began its annual review of the *Wildlife Code* of Missouri, the main topic was how to continue providing quality hunting and fishing opportunities with the rising costs of supplies and the likelihood of continued lagging revenue from the 1/8th of 1 percent sales tax—the Department's main funding source. Raising permit prices, many of which haven't been raised in more than five years, and some as long as 10 years, was suggested.

Another idea was to find more ways to return federal excise tax to Missouri. Federal excise tax is collected whenever anyone purchases hunting and fishing equipment. The money is distributed to the states based on the number of hunters and anglers who purchase a hunting or fishing permit that year. Those who do not purchase at least one permit, such as many seniors and some landowners, see their federal excise tax sent to other states. Obviously, we'd prefer Missouri's tax payment be directed to the payers' home state.

NO PADOL PAOTHONG

The rationale for increasing revenue was to continue services that Missourians have come to expect. With current funding, the Department will have less money to spend on fish stocking, dove hunting fields, wetland management, landowner assistance, law enforcement, education and other programs. The plan to bring in additional money included:

- raising permit prices
- setting up a new permit system for seniors age 60 through 64 that provided discounts on permits and allowed them to be counted for federal excise tax purposes after age 65
- reducing the number of no-cost deer and turkey hunting permits issued to landowners

The Commission passed the permit package at the end of September just as news of the looming economic crisis began to arrive, and Missourians let us know in a flurry of phone calls, e-mails and visits that they did not like some of the proposals, especially in tough economic times. As a result, we will not raise

resident prices in 2009. In fact, prices for youth permits have been lowered. Nonresidents, however, will pay more. The senior permit package was scrapped because new federal laws may provide fewer returns than initially expected from this program. Also, resident landowners of five or more acres will continue to get the same number of no-cost permits as they did last year.

While some might not agree with the decisions made this year, Department staff listened to all comments and remain committed to protecting the resources that Missourians value. Below are the regulation changes that will take effect July 1, 2009.

### Youth hunter and angler recruitment

One of the Department's goals is to provide more opportunities for youth to hunt and fish. Beginning July 1, several changes will help these efforts.

**Quality fishing opportunities through fish stocking is just one of the many services financed by permit fees.**





- After the spring turkey hunting season, the Youth Deer and Turkey Hunting Permit and the Youth Firearms Antlerless Deer Hunting Permit will no longer be available. Instead, both residents and nonresidents age 6 through 15 can purchase deer and turkey hunting permits at half the price of resident permits. Youth Deer and Turkey Hunting Permits purchased during the 2009 spring turkey season remain valid for the 2009 fall firearms deer and turkey hunting seasons. This change allows youth to purchase a variety of permits at a reduced cost and to harvest more than one turkey during the spring and fall seasons.
- Resident and nonresident youth age 15 and younger can purchase a Trout Permit at half the price of a Resident Trout Permit.
- Resident youth age 15 and younger can trap without a permit.
- Nonresidents who are living in Missouri while attending a public or private high school, college, university or vocational school in Missouri may purchase resident annual permits. Students must carry evidence of their Missouri residence and student status while hunting, fishing or trapping. These permits will be available after June 30, only at Department offices that sell permits.

### **Mentoring consistency**

In the past, ages and qualifications varied for mentoring novice firearms hunters. As of July 1, when mentoring any firearms hunter who is not hunter-education certified, all mentors, including landowners hunting on their own land, must be at least 18 years old and hunter-education certified unless they were born before Jan. 1, 1967. This may affect some landowners who are 42 years of age or younger even if they only hunt on their own land. They will be required to be hunter-education certified to be a mentor on their own land, but not to hunt themselves on their own land.

### **Nonresident permit price increases**

Nonresident permit prices will increase in July, and the reduced-cost nonresident landowner deer and turkey hunting permits will no longer be available after the 2009 spring turkey



**Beginning July 1, residents and nonresidents age 6 through 15 may purchase deer and turkey hunting permits for half the price of resident permits. One of the Department's goals is to provide more opportunities for youth to hunt and fish.**





JIM RATHERT

Snow geese

**Beginning with the 2010 Conservation Order, hunters age 16 and older must purchase the new Conservation Order Permit to take snow, Ross's and blue geese. The revenue will help fund federal reporting requirements and surveys.**

## How regulations are set

Each year the Regulations Committee reviews the *Wildlife Code* of Missouri to ensure the state's forests, fish and wildlife are protected. Here's how the process works.

1. Changes proposed by the public and by staff are brought to the committee to review.
2. The committee researches the effects of the proposed regulation changes. Information reviewed may include costs to the taxpayers, effects on wildlife populations, user group surveys, public comments and feasibility studies.
3. When research shows a change could improve management of a species or provide more opportunities for Missourians to enjoy the outdoors, a proposed regulation change is sent to Director John Hoskins.
4. If the director approves the change, he submits the proposal to the Conservation Commission, four citizens appointed by the governor.
5. If passed by the Commission, the proposed changes are filed with the secretary of state and published in the *Missouri Register*. The link can be found at [www.MissouriConservation.org/19400](http://www.MissouriConservation.org/19400).
6. The filing begins the 30-day public comment period. If no comments are received, the final regulation is filed and becomes effective either 30 days after publication in the *State Code* of regulations or on the date specified in the proposal.
7. When comments are received, the proposal is reviewed. Based on the public's comments, the Commission may decide to drop, modify or implement the regulation.

hunting season. Many nonresident landowners feel that they should continue to receive reduced-cost permits because they pay property tax, but the Conservation Department doesn't receive funding from property tax, which funds local schools and other local government programs. Many Missourians feel that nonresidents should pay more because they do not contribute to the sales tax throughout the year. In setting the cost of nonresident permits, the Department tries to balance the desires of those wishing to return to Missouri to hunt with family and friends with a fair cost for the premier deer and turkey hunt opportunities Missouri provides. Our nonresident permits continue to be priced lower than most surrounding states.

## Light goose permit funds survey and Web site

The new Conservation Order Permit will be required for residents and nonresidents age 16 and older to pursue, take, possess and transport blue, snow or Ross's geese beginning with the 2010 Conservation Order. The \$5 fee for residents and \$40 for nonresidents will help offset costs associated with administering the Conservation Order in Missouri. Costs include providing public hunting opportunities on conservation areas, conducting a post-season survey, obtaining and reporting information as required by the federal government, maintaining a Web site and enforcement.

## Protecting native species

Sometimes regulations celebrate wildlife success stories. This year the barn owl, bald eagle and Western foxsnake were removed from the list of endangered species in Missouri. The bald eagle has made a dramatic comeback across the United States. Reported sightings of the Western foxsnake have increased, probably due to successful wetland restoration projects. Barn owls remain rare in Missouri, but nest box programs are helping to offset local population declines when old barns and sheds are torn down.

To help protect Missouri's native species, black carp, a snail- and mussel-eating fish from China, has been added to the list of species that cannot be brought into the state. Also, quagga mussels, an exotic species similar to the zebra



mussel, have been put on the prohibited species list. Both of these species could harm native mussel populations and change the ecology of our rivers, streams and lakes.

Wild ginseng now may be purchased, sold, transported or exported in dried form only from Sept. 15 through March 15. The two-week delay for selling dry roots will bring Missouri's regulations in line with most other states that allow ginseng harvest and may reduce the amount of illegal digging of wild roots before the Sept. 1 harvest date.

### Commercial regulations

Worldwide demand for caviar continues to generate substantial commercial harvest of roe-bearing fish. To allow Missourians to harvest bowfin and paddlefish as well as shovelnose sturgeon, the Resident Shovelnose Sturgeon Commercial Harvest Permit was changed to Resident Roe Fish Commercial Harvest Permit. Recently established roe harvester permits in Illinois allowed Missouri

to recognize reciprocal fishing privileges for Illinois commercial fishers in Missouri with the Nonresident Mississippi River Roe Fish Commercial Harvest Permit. The price was raised to match the price of the Illinois non-resident permit. Also, a Roe Fish Dealer Permit was established to help track commerce in roe, and it matches similar permit requirements in other states and assists enforcement efforts.

### More recreational options for conservation areas

Geocaching and letterboxing are popular outdoor activities. To provide Missourians additional opportunities to enjoy conservation areas, these activities will be added to the list of recreational opportunities allowed by Special Use Permit starting April 30. These permits, which allow a person to set up a geocaching or letterbox site on appropriate conservation areas, will be available from the area managers. Some areas, such as natural areas, may not be suitable for geocaching and letterboxing. ▲

**Conservation areas are a great place to learn about and to enjoy the outdoors. To encourage a wide variety of uses, a few activities, such as geocaching, will require a Special Use Permit starting April 30.**



# Hunting and Fishing Calendar

## FISHING

**OPEN** **CLOSE**

Black Bass (certain Ozark streams, see the *Wildlife Code*)

5/24/08 2/28/09

impoundments and other streams year-round

Bullfrogs and Green Frogs Sunset Midnight

6/30/09 10/31/09

Nongame Fish Snagging 3/15/09 5/15/09

Paddlefish 3/15/09 4/30/09

Paddlefish on the Mississippi River 3/15/09 5/15/09

Trout Parks Catch and Release 11/14/08 2/9/09

Friday—Monday at Bennett Spring, Montauk and Roaring River  
and daily at Maramec Springs

Trout Parks 3/1/09 10/31/09

## HUNTING

**OPEN** **CLOSE**

Coyotes 5/12/08 3/31/09

Crow 11/1/08 3/3/09

Deer

Firearms

Urban 10/9/09 10/12/09

Youth 10/31/09 11/1/09

1/2/10 1/3/10

November 11/14/09 11/24/09

Antlerless 11/25/09 12/6/09

Muzzleloader 12/19/09 12/29/09

Groundhog 5/11/09 12/15/09

Light Goose Conservation Order 1/31/09 4/30/09

please see the backcover of the *Waterfowl Hunting Digest* or download the  
PDF at [www.MissouriConservation.org/777](http://www.MissouriConservation.org/777)

Rabbits 10/1/08 2/15/09

Squirrels 5/24/08 2/15/09

Turkey

Youth (resident only) 4/4/09 4/5/09

Spring 4/20/09 5/10/09

Fall 10/1/09 10/31/09

Waterfowl please see the *Waterfowl Hunting Digest* or  
see [www.missouriconservation.org/7573](http://www.missouriconservation.org/7573)

## TRAPPING

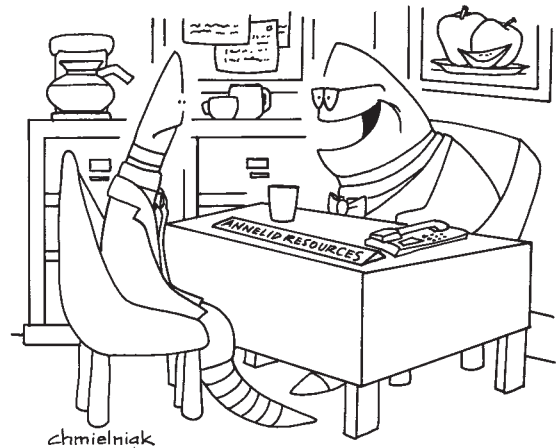
**OPEN** **CLOSE**

Beaver and Nutria 11/15/08 3/31/09

Otters and Muskrats 11/15/08 see *Wildlife Code*

For complete information about seasons, limits, methods and restrictions, consult the *Wildlife Code* and the current summaries of *Missouri Hunting and Trapping Regulations* and *Missouri Fishing Regulations*, the *Fall Deer and Turkey Hunting Regulations and Information*, the *Waterfowl Hunting Digest* and the *Migratory Bird Hunting Digest*. For more information visit [www.MissouriConservation.org/8707](http://www.MissouriConservation.org/8707) or permit vendors.

The Department of Conservation's computerized point-of-sale system allows you to purchase or replace your permits through local vendors or by phone. The toll-free number is 800-392-4115. Allow 10 days for delivery of telephone purchases. To purchase permits online go to [www.wildlifelicense.com/mo/](http://www.wildlifelicense.com/mo/).



"Wendell, you won't be getting that promotion  
—you have no backbone.  
Of course...heh, heh, heh...none of us do."

## Contributors



LUANN CADDEN worked eight years as a naturalist and conservation education supervisor for the Conservation Department in St. Joseph. She now works as a writer and freelance editor. When not tapping computer keys, she enjoys exploring the outdoors year-round with husband, Mike, and daughters, Rose and Lillian.

TOM Cwynar is a writer/editor for the *Conservationist* who often writes about fishing Missouri waters. Tom said he has a variety of interests, but that he generally likes the outdoors more than the indoors and activity more than passivity. He is currently trying to teach his new little white boat to catch fish.



Assistant Director DAVE ERICKSON is a 32-year employee of the Conservation Department. He oversees field operations and supervises the Fisheries, Forestry, Wildlife, Private Land Services, Protection and Resource Science divisions. He also chairs the Regulations Committee. Dave is an avid hunter, angler and outdoor enthusiast.



## March 1969

## By Mickey Winkler

Building your own evergreen engine is a critical value add in a sustainable family enterprise.

**I** HAVE BEEN careful though I play cards, till all play ends under your eye, without your rule and looked to a dark house lighting through the door that you probably left a looking to view a sleep of you. I was that used during such a time when, it's made to find you a good night.

planning the camp meetings, these very fully and judiciously answered the question. They are going to give in a needed way, have the very best teachers (men and just women) and a splendid choir. The great question was not left with the way of doing out and the singing, they will go through and practice in the past

needs a little more time, particularly since it is essential that the work be done on the line, all as shall soon be explained here. To summarize this, a condensed list is last November or December is an election and therefore we have to make the best of it.

The first thing that has been done is that the line has been moved to the

working. We can choose to alter our lives, or simply keep the same ones and just "breathe" and "cope" until things change. There's a catch. If we can't be more confident about looking for a way ahead, it will be necessary to face down the city's darkness directly, rather than peering along our side, some safe and well-worn fence around it.

This brings us to the opening of sales to give our plan credit as plan meetings. It is a certainty that during the dormant season of late winter and early spring, when the weather is cold and the ground is frozen, the best time to hold our meetings is in the early months of the year. The best time to hold our meetings is in the early months of the year. The best time to hold our meetings is in the early months of the year.

It is not prudent for an investor to have too many open positions. The more open positions you have, the more likely you are to be in the company of investors who have no idea what they are doing. It is not prudent for an investor to have too many open positions. The more open positions you have, the more likely you are to be in the company of investors who have no idea what they are doing. It is not prudent for an investor to have too many open positions. The more open positions you have, the more likely you are to be in the company of investors who have no idea what they are doing.

by the back, around the neck, both nostrils, is still its common position, the back is always straight, while the arms in its simple use are not so straight as here. Thus the gaiting, jumping and leaping are only slight. Besides, one can be more (or make more and grow) and growed than Frodo could be, and growed than Frodo could be, and growed than the wife can.

that the group of the meetings do with entering them. It doesn't work. But finally you help your health by weight loss. Brothers passing by and coverage. The last 24 is the best and more will see their dream come true. But there's still not the

[illegible]

Still on the other, they were significantly more likely to purchase and consume tea or coffee in past days after early health care or surgery than of those without such care. This experience was in contrast to that of people who were not in need of surgery after the event.

The total cost of illness was a significant predictor of the receipt of pharmaceuticals, with each

claims amounts, to keep the industry free of competition from outside businesses and even go as far as not paying. In cases like young girls with cancer, it's not just the money that is at stake, but the lives of the patients. There's no question that the

[illegible]

*Regulations try to balance the needs of hunters and turkeys.*

IT'S TRUE WHAT they say about Missouri's weather—if you don't like it, wait a day and it will change. The past two springs have exemplified this pattern of daily weather changes. Freezing temperatures, coupled with unusually wet conditions, have caused turkey hunting success to decline in some regions of the state. These weather conditions and their effects on Missouri's resources play a role in determining regulations.



This year, youth turkey hunters will again be able to hunt from a half-hour before sunrise to sunset during the youth turkey season. During the regular season, shooting hours remain the traditional half-hour before sunrise to 1 p.m. The exception to the 1 p.m. closing during the youth turkey season is due to fewer hunters in the field and the Conservation Department's desire to promote youth hunting opportunities. This rule is a great illustration of how regulations ensure continued hunting success. If conditions are cooperative, the majority of hens will have bred by the start of the regular spring turkey season. When we experience freezing temperatures and flooding around this same time, nests are destroyed and the turkeys attempt to breed again. Poults begin to hatch in mid-May with the peak hatch occurring the first week of June. Most hens make a second nest attempt if the first nest is lost.



March 2009 Missouri Conservationist 33

## “I AM CONSERVATION”

John Wheeler (right) of St. Joseph, with the help of his brother, Ron, has managed his land in Andrew County for upland birds for the past 10 years, but got really serious about it in 2004. “I’ve been a quail hunter more years than I can count,” said Wheeler, “and the dwindling quail population was really starting to bother me. So, I decided to do something.” In 2004 he applied for CRP and has expanded his habitat work every year since. His practices include restoring warm season grass, edge feathering, shrub plantings and controlled burns. They did whistle counts in 2004 and estimated a total of four to five coveys. Now, whistle counts suggest a total of 10 to 11 coveys. Wheeler said that success has been very rewarding, but he has even higher aims: “My ultimate goal is one covey for every 10 acres!” To learn more about conservation activities, visit [www.MissouriConservation.org](http://www.MissouriConservation.org). —PHOTO BY DAVID STONNER



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Missouri households*